



EPA Region 5 Records Ctr.



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July 7, 2003

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**Via Electronic Mail and Certified Mail  
Return Receipt Requested**

Mr. Kevin Adler, Remedial Project Coordinator  
U.S. Environmental Protection Agency, Region 5  
Office of Superfund, Remedial & Enforcement Response Branch  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

**Subject: Granville Solvents Site Removal Action Quarterly Report – Second Quarter 2003**

Dear Mr. Adler:

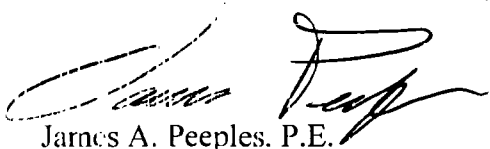
On behalf of the Granville Solvents Site PRP Group, Metcalf & Eddy of Ohio, Inc. respectfully submits the Quarterly Report for the Removal Action at the Granville Solvents Site. Copies have been sent to the following individuals:

Mr. Steve Acree, U.S. EPA  
Mr. Peter Felitti, U.S. EPA  
Mr. Fred Myers, Ohio EPA  
Mr. Joe Hickman, Manager, Village of Granville

If you have questions regarding this submittal, please contact me at (614) 890-5501.

Respectfully,

**METCALF & EDDY OF OHIO, INC.**



James A. Peeples, P.E.  
Project Manager

cc: B. Pfefferle, Chairman - GSS PRP Group  
William S. Brewer, PhD, Chairman – GSS PRP Group Technical Committee

**GRANVILLE SOLVENTS SITE  
REMOVAL ACTION QUARTERLY REPORT  
FOR APRIL, MAY and JUNE 2003**

**JULY 2003**

Pursuant to the requirement set forth in the Administrative Order by Consent (AOC, August 7, 1994) between the U.S. EPA and the Granville Solvents Site (GSS) Potentially Responsible Parties (PRP) Group, in Section 2.5-Reporting, and the letter, dated February 14, 1996, from Ms. Diane Spencer (U.S. EPA), this report constitutes the quarterly written progress report concerning actions undertaken pursuant to the AOC.

**I. PROGRESS MADE DURING REPORTING PERIOD**

Source Area Groundwater Control

The groundwater pumping and treatment system operated 716 hours in April, 736 hours in May, and 720 hours in June, for a total of 2,172 hours (99 % of the total time available) during the second quarter of 2003. Since operation of the treatment system began in December 1994, the system has operated 98.6% of the available time.

The treatment system processed approximately 10.13 million gallons of water in April, 10.42 million gallons of water in May, and 10.19 million gallons of water in June, for a total of 30.74 million gallons of water for the quarter. Since operation began in December 1994, more than one billion gallons of groundwater (1,011,380,000 gallons) have been extracted and treated.

During the second quarter of 2003, M&E collected monthly air pressure measurements in the air-stripping unit's exhaust duct, which was used to calculate airflow values. The measured airflow was 2,121 cfm in April, 2026 cfm in May and 2,050 cfm in June. Acid washing of the air-stripping unit occurred in May.

M&E continued to perform the scheduled monthly maintenance on the treatment system. This maintenance ensures the system is performing at maximum efficiency and decreases unscheduled downtime. The maintenance included replacing the bag filters, lubricating the transfer pump and blower motors, and checking the flow meters and level sensors.

Water samples were collected from the system's influent and effluent sampling ports on April 10, May 19 and June 11. The analytical results are presented in Table 1.

**TABLE 1**  
**Monthly Influent/Effluent Sampling Results**

VOCs	Influent April 10	Effluent April 10	Influent May 19	Effluent May 19	Influent June 11	Effluent June 11
1,1,1-trichloroethane	13.0µg/l	ND	13.6µg/l	ND	12.0 µg/l	ND
Cis-1,2-dichloroethene	2.8µg/l	ND	2.9µg/l	ND	2.5 µg/l	ND
Tetrachloroethene	13.0µg/l	ND	14.0 µg/l	ND	14.0µg/l	ND
Trichloroethene	18.0µg/l	ND	18.0 µg/l	ND	16.0 µg/l	ND
1,1-dichloroethylene	ND	ND	ND	ND	ND	ND

Extraction well GSS-EW1 was operated at an average flow rate of approximately 100 gallons per minute (gpm) during the second quarter of 2003. Well GSS-EW2 was operated at an average flow rate of approximately 140 gpm during the second quarter of 2003. The total pumping rate averaged 240 gpm for the second quarter of 2003. Table 1 provides the influent and effluent VOC concentrations at the GSS. Approximately 30.74 million gallons of water were processed for the second quarter of 2003. Based on these data, total VOCs of approximately 0.19 lb/day in April, 0.19 lb/day in May, and 0.17 lb/day in June were discharged to the atmosphere during this reporting period.

#### Groundwater Monitoring

Groundwater level measurements were collected on May 6 during the annual groundwater sampling event. These data were used to develop potentiometric surface maps and the potentiometric map is included as Figure 1 with this report. Groundwater sampling for the Annual event was completed on May 5, 6, and 7, 2003.

#### Source Area Soils

Source area soils are undergoing treatment at this time utilizing air injection (AI), air sparging (AS) and soil vapor extraction (SVE). The treatment systems were designed by M&E and have been operated by Metcalf & Eddy since March 1, 2003. Prior to this time the system was operated by Sharp and Associates, Inc. The soil vapor extraction system began the second quarter of 2003 with a biweekly alternation schedule in which one half of the SVE wells were operated during one period and one half operated during the second period. The vacuum extraction system under the cap was operated during all periods. The biweekly alternation was changed on May 2, 2003 such that all vacuum extraction wells were operated simultaneously.

The average air flow rate after this change was approximately 180 scfm with one SVE blower in operation. The second SVE blower was brought on-line on May 19, 2003. The average flow rate following the start-up of the second blower was approximately 400 scfm.

A SUMMA canister sample of the SVE system influent was obtained on May 29, 2003. Results of this sampling are provided in Table 2.

**TABLE 2**  
**Summa Canister Sampling May 29, 2003**  
**Detected Parameters**

<b>Compound</b>	<b>Concentration (ppmV)</b>	<b>(Concentration ug/m<sup>3</sup>)</b>
Tetrachloroethene	.011	74.6
Trichloroethene	.042	225.5
1,1,1-Trichloroethane	.0066	26.2
Cis-1,2-Dichloroethene	.039	212.9
Toluene	.0069	26.0
<b>Total</b>		<b>565.3</b>

The total soil gas extracted by the SVE system for the quarter was approximately 1.15 million cubic feet. A total of approximately 244 pounds of VOCs have been removed by the SVE system since start-up. Mass removal estimates are based on PID readings and SUMMA canister samples obtained periodically from the SVE influent. The removal rate for the SVE system has remained well below the de minimis allowed quantity of 10 pounds per day throughout this quarter.

#### Active or Completed Tasks

The following specific tasks were completed during the reporting period:

- Collected water samples on April 10, May 19, and June 11, 2003, from the treatment system influent and effluent sampling ports.
  - Collected water level measurements on May 6, 2003.
  - Continued to collect airflow data on a monthly basis.
  - Collected the Annual suite of samples from monitoring network on May 5<sup>th</sup> and 6<sup>th</sup>, 2003. ✓
  - SVE wells began operating continuously on May 2, 2003,
  - The second SVE blower was brought on line on May 19, 2003,
  - The AI system continued to operate on a 12 hour on/12 hour off cycle,
- results?

- Repairs were completed on wells AS-1 and AS-2 to allow better air flow to these wells.

## **II. DELIVERABLES (CURRENT PERIOD AND NEXT PERIOD)**

### **CURRENT PERIOD:**

<u>Deliverable</u>	<u>Due Date</u>
Quarterly Report	July 7, 2003

### **NEXT PERIOD:**

<u>Deliverable</u>	<u>Due Date</u>
Quarterly Report	October 7, 2003

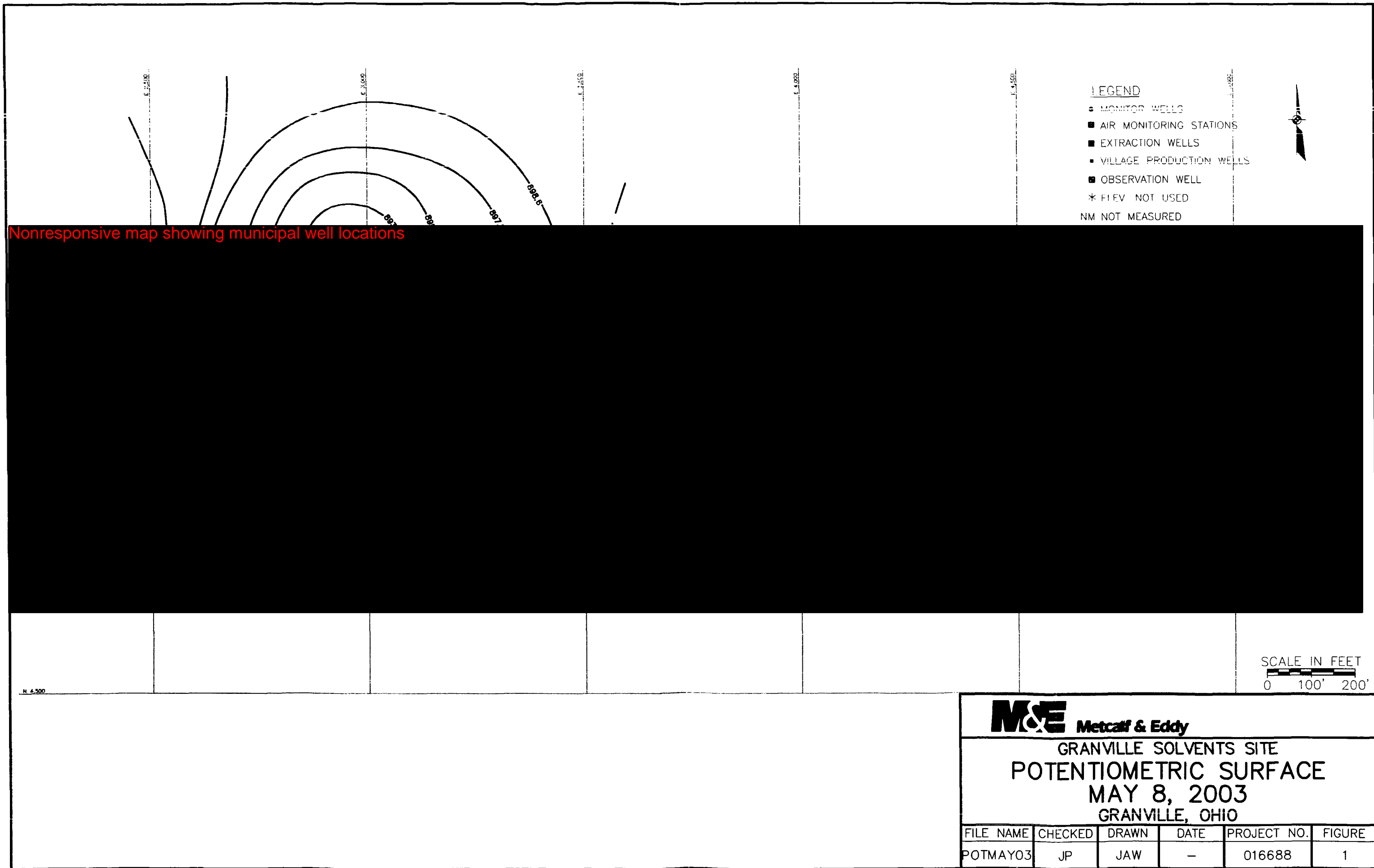
## **III. DIFFICULTIES ENCOUNTERED REMEDIAL ACTIONS TAKEN THIS PERIOD**

- The air flow rate to wells AS-1 and AS-2 was lower than expected and maintenance was performed on the wells. The air flow resumed a normal rate after the maintenance activities.

## **IV. ANTICIPATED ACTIVITIES DURING NEXT REPORTING PERIOD**

During the next reporting period, M&E will perform the following tasks:

- Collect potentiometric surface data on a Quarterly basis.
- Sample the treatment system influent and effluent water on a monthly basis.
- Perform scheduled maintenance of the treatment systems.
- Perform scheduled data collection for the treatment systems.
- Collect the quarterly suite of samples from monitoring network in August.
- Acid wash the Shallow Tray™ air stripper.
- Collect a SUMMA canister sample of the SVE effluent.



Nonresponsive map showing municipal well locations